

ABSTRACTS

This section of the JOURNAL is published in collaboration with the two abstracting Journals, ABSTRACTS OF WORLD MEDICINE and OPHTHALMIC LITERATURE, published by the British Medical Association. The abstracts are divided into the following sections: Syphilis (Clinical, Therapy, Serology, Pathology, Experimental), Gonorrhoea, Non-Gonococcal Urethritis and Allied Conditions, Chemotherapy, Public Health and Social Aspects, Miscellaneous. After each subsection of abstracts follows a list of articles that have been noted but not abstracted. All subsections will not necessarily be represented in each issue.

SYPHILIS (Clinical)

Survival Rate of Patients Hospitalized with the Diagnosis of General Paresis. EHRENTHEIL, O. F., and MUENCH, H. (1959). *J. chron. Dis.*, **9**, 41. 14 refs.

Among the reasons given by the authors for undertaking an examination of the survival rate in cases of general paresis are:

- (1) The great changes in life expectancy in this disease in recent years;
- (2) The absence of previous studies comparing the survival rate of paretics with that of the general population.

Data on two groups of paretics, all males, were statistically analysed. The first group was composed of 87 paretics, still alive and in the Veterans Administration Hospital, Bedford, Massachusetts, in January, 1957. Of these, eighty were aged 50 or over and 44 had been hospitalized for more than 20 years, in marked contrast to the average life expectancy of 1.5 to 4 years for paretics before the discovery of malarial therapy in 1917. The second group consisted of the first hundred paretics admitted to the hospital between 1928 and 1933, and these were analysed both as regards their death rate and as to the ratio of their survival rate to the survival rate of a matched group taken from three different U.S. life tables. It is considered that such a survival ratio gives a truer picture than simple 5- or 10-year survival rates. Tables are included showing that mortality is increased generally in paretics, and that excess mortality is very high during the first years after admission and declines as the years go by. This group was further analysed by subdividing it into sub-groups of over and under 40 years of age. In both sub-groups approximately 25 per cent. died during the first 5 years irrespective of age, but after 5 years the over-40 group sustained a higher death rate during the next 10 to 15 years. It is suggested that vascular syphilis combines with arteriosclerotic processes to produce this excess mortality in the older sub-group.

A. J. Gill

Statistical and Epidemiological Studies of Ocular Syphilis. [In Japanese with English Summary]. KAKISU, Y. (1958). *Acta Soc. ophthal. jap.*, **62**, 2481. 4 figs, 40 tab., 342 refs.

Statistics of 375 cases of interstitial keratitis and 144 cases of simple atrophy of the optic nerve are given. Cortisone was effective in the early stage of the keratitis but relapse was seen in 5 per cent. of cases cured by cortisone. In syphilitic optic nerve atrophy, penicillin was effective. In about 50 per cent. of the cases progression of the disease was stopped for 7 years or more. *Y. Mitsui*

Epidemiological Study of Infectious Syphilis. SOQUEL, J. A., HOSKING, W. O., MONTGOMERY, C. H., and LAURENTZ, F. K. (1959). *Sth med. J. (Bgham, Ala.)*, **52**, 199. 1 fig., 3 refs.

Modern Concepts of the Diagnosis and Treatment of Syphilis. FLEISCHMAJER, R. (1959). *Med. Clin. N. Amer.*, **43**, 945. 53 refs.

Prophylaxis and Diagnosis of Sero-Negative Syphilis. (Prophylaxe und Diagnose der blutnegativen Lues.) GRILLMAYER, W. (1959). *Int. J. proph. Med.*, **3**, 85.

Electro - Encephalographic Findings in Neurosyphilis. (Elektro-encefalograficke Nalezky pri Luese Nervsta.) MATULAY K., and KLUKAN, B. (1959). *Bratisl. lek. Listy*, **39**, part 1, No. 12, 721. 4 figs, 32 refs.

Seizures in Neurosyphilis. FERRISS, G. S. (1959). *Dis. nerv. Syst.*, **20**, 156. 4 refs.

Syphilis and the Optic Nerves. AYYANGAR, M. C. R. (1959). *Antiseptic*, **56**, 247. 2 refs.

Pathological Changes in the Teeth in Congenital Syphilis. (W sprawie patomorfologii uzębienia w kile wrodzonej.) LIPSKI, J., and PRZYLIPIAK, S. (1959). *Pol. Tyg. lek.*, **14**, 524. 5 figs, 10 refs.

Influence of Environment on the Manifestation of Syphilis. [Review Article]. (Der Einfluss der Umwelt auf die Erscheinungsform der Syphilis.) LUGER, A. (1959). *Wien. klin. Wschr.*, 71, 253. 1 fig., 93 refs.

Syphilis. BEERMAN, H., NICHOLAS, L., SCHAMBERG, I. L., and GREENBERG, M. S. (1959). *A.M.A. Arch. intern. Med.*, 103, 460.

SYPHILIS (Therapy)

Some Remarks on the Management of Late Syphilis. HAHN, R. D. (1959). *J. chron. Dis.*, 10, 67.

Prognosis and Treatment of Late Latent Syphilis. BARNETT, C. W. (1959). *Stanf. med. Bull.*, 17, 61. 43 refs.

Oral Tetracycline in the Prevention of Prenatal Syphilis. RAJAM, R. V., and SOWMINI, C. N. (1959). (1959). *J. Indian med. Ass.*, 32, 435. 4 refs.

SYPHILIS (Serology)

Clinical Interpretation of Serological Reactions in Venereal and Endemic Treponematoses. POULSEN, N. H. (1958). *Amer. J. publ. Hlth*, 48, 1622. 9 refs.

Despite elimination of the infectious state of endemic treponematoses (yaws) by mass-treatment methods in Guam and the adjacent Mariana Islands, positive serological reactions are still frequently found. Although venereal treponematoses (syphilis) is rare in areas with a high incidence of endemic yaws, probably because the latter confers some protection against the former, the problem must constantly be faced in the individual patient. This is especially so in Guam, which has a large transient U.S. military population with a high incidence of venereal infection. If the condition is one of latent or inactive yaws it is of little importance, but if it is syphilis, adequate treatment is of vital importance.

With a view to avoiding the often undesirable results of falsely interpreting a doubtful positive serological reaction, the author has studied 310 patients giving a positive reaction among 10,855 on whom routine tests were carried out at the Government Hospital, Guam, between January, 1955, and May, 1957. All but two of these patients were of oriental origin, about half (165) were in the age group 21 to 40, and 146 of them were males and 164 females. The author stresses that in coming to a diagnosis an accurate history is essential. Among the questions asked were those concerning slow-healing sores in childhood, symptoms of venereal diseases, any former serological tests performed, and a history of treatment with penicillin, arsenic, or bismuth. The detailed physical examination aimed at detecting scars of yaws or syphilis. Peri-oral scars of "nursing type" yaws are readily recognizable, but penny-size scars on the extremities may be due to a variety of causes; those due to yaws are characteristically multiple, the overlying skin being smooth, thin, and darkly pigmented. On the basis of these indications, or their absence, the 310 patients were divided into two groups:

(1) Undetermined cases requiring treatment.

(2) Cases of healed yaws, not requiring treatment.

Of the 103 patients in Group 1, two had active yaws, and four, including two white patients, were diagnosed as having syphilis, but the other 97 were completely asymptomatic. The patients in this group were treated with courses of procaine penicillin consisting of either 600,000 units daily for 5 days where the weight of evidence favoured yaws or 600,000 units daily for 10 days where the possibility of syphilis could not be excluded. The number of follow-up serological tests was too small to provide retrospective help in diagnosis. Of the 207 patients in Group 2, 97 had already been adequately treated with at least one course of 600,000 units of penicillin daily for 5 days at some time one to 6 years previously. None of these had symptoms suggestive of venereal disease, but most had scars or a history of yaws, with inactivity for at least 10 years. The remaining 110 in Group 2 had not received treatment, or if so its nature and amount were unknown. All had a history of yaws, inactive for at least 10 years, and all had typical yaws scars, but nothing clinically or historically suggestive of venereal syphilis. The serological tests in these cases were considered of no significance. Four case histories are given in detail.

The author considers that the findings support the theory that yaws, treated or untreated, protects against syphilis. He stresses, however, that each case must be considered individually if unnecessary treatment on the one hand or late syphilitic damage on the other is to be avoided.

R. S. Morton

Comparative Study of the *Treponema pallidum* Immobilization (TPI) and the *Treponema pallidum* Complement-Fixation (TPCF) Tests. [In English]. HEDERSTEDT, B. (1959). *Acta path. microbiol. scand.*, 45, 62. 5 refs.

At the State Bacteriological Laboratory, Stockholm, 318 sera submitted for the treponemal immobilization (TPI) test were also tested by the treponemal complement-fixation (TPCF) test of Portnoy and Magnuson (*J. Immunol.*, 1955, 75, 348; *Abstr. Wld Med.*, 1956, 19, 442). The fifth-volume Kolmer technique was used, the sera being tested at initial dilutions of 1:2 and 1:4 with 1.5 exact units of complement. The antigen was prepared from rabbits irradiated with x rays (600 r) and had an optimum titre of 1:8; it was found to be stable for at least a year when stored at -10°C .

The TPI reaction was positive with 230 and weakly positive with four of the 318 sera. With serum diluted 1:2 the TPCF reaction was positive in 189 cases and anti-complementary in 24; at a dilution of 1:4 the test gave 148 positive and twelve anticomplementary reactions. No positive TPCF reactions were obtained with sera which gave a negative TPI reaction. The TPCF test was thus considerably less sensitive than the TPI test, but as judged from the results of the latter test it has a high specificity. It is concluded that it cannot replace the TPI test for the serological diagnosis of syphilis.

The high proportion of anticomplementary results with the TPCF test was surprising. The author points out that, although excess haemolytic complement activity was shown in all the TPI tests by lysis of sensitized

cells after reading, this does not necessarily mean that there was also a surplus of the portion of complement needed for immobilization of treponemes. Tests have shown that the ratio of haemolytic to immobilizing activity in different specimens of complement may vary greatly.

A. E. Wilkinson

Inter-laboratory Evaluation of Serological Tests for Syphilis in India. Final Report on 1953-55 Inquiry.
RAJAM, R. V. (1958). *Bull. Wld Hlth Org.*, 19, 995. 7 refs.

In this communication from Madras Medical College, India, the author describes an investigation carried out between 1953 and 1955 under the sponsorship of the Indian Council of Medical Research to determine the relative merits of the serological tests for syphilis in current use in India. Eight major laboratories in various parts of the country took part, and the tests evaluated were the Wassermann reaction and the Kahn standard test using crude tissue-extract antigen, and also the VDRL slide precipitation test with cardiolipin antigen. A total of 921 sera, including 376 from cases of syphilis in various stages, 86 from cases of non-syphilitic venereal disease, 265 from donors with non-venereal diseases, and 194 from apparently normal persons, were sent by air from Madras as "unknowns" for parallel qualitative and quantitative testing in the participating laboratories.

Of the three tests the VDRL slide precipitation test gave the best results, showing an average percentage specificity of 97.6, a percentage sensitivity of 95.2, and a percentage reproducibility of 87.2; this test also showed the least variation in results as between the different laboratories. The Kahn reaction gave the same specificity (97.2 per cent.) as the VDRL, but its sensitivity (83.4 per cent.) and its reproducibility (82.5 per cent.) were comparatively low, and with this test the results showed greater variation as between laboratories. The Wassermann reaction had the lowest average specificity (86.1 per cent.) the lowest reproducibility (76.7 per cent.), and the greatest variation between laboratories, but its average sensitivity (85.6 per cent.) was a little higher than that of the Kahn test. Methods of improving and maintaining the standards of technical performance of these tests, with special reference to the situation in India, are discussed at some length.

It is concluded that by reducing the number of different tests used to a minimum, improvement and standardization of techniques would be facilitated. The detailed results, all of which were analysed statistically, are presented in thirteen Tables.

R. R. Willcox

Comparison of Seven Serological Tests for Syphilis.
(Sieben Leusreaktionen im Vergleich.) BUBE, F. W. (1958). *Zbl. Bakt., I. Abt. Orig.*, 173, 479. 2 figs, 28 refs.

It is pointed out that the sensitivity of the various antigens used in serological tests for syphilis can be judged only in undoubted cases of the disease. At the City Institute of Hygiene and Medical Research, Dortmund, the author tested sera from 1,343 proved cases of syphilis; the clinical stage of the disease was unknown

when the tests were performed. In all, four complement-fixation tests and three flocculation tests were carried out on each specimen of serum.

The most sensitive among the complement-fixation tests was the pallida test, the sensitivity of which was 68.2 per cent. The VDRL test gave positive reactions in 97.4 per cent. of cases and was the most sensitive of all the seven tests used. The Wassermann reaction, using either beef heart antigen or liver extract antigen, was positive in only 39 and 38.2 per cent. of cases respectively.

In 322 cases, it was demonstrated that the sensitivity of the pallida complement-fixation test could be increased by using higher serum concentrations when the test was repeated. [Details of the author's technique are given.] In 11 per cent. of cases the VDRL reaction alone was positive, in 4 per cent. the pallida complement-fixation reaction alone, and in 7.4 per cent. of cases these two tests gave a positive result, whereas the other five tests gave a negative result. The author concludes therefore that both these reactions should be included in the serological investigation of cases of syphilis.

R. D. Catterall

Investigations on the Rapid Plasma Reagin Test. SCHMIDT, H., and BENTZON, M. W. (1958). *Bull. Wld Hlth Org.*, 19, 563. 1 fig., 6 refs.

The sensitivity of the rapid plasma reagin (RPR) test of Portnoy and others (*Publ. Hlth Rep. (Wash.)*, 1957, 72, 761; *Anstr. Wld Med.*, 1958, 23, 254) was compared with that of the standard VDRL test at the State Serum Institute, Copenhagen. Several alterations were made in the technique as originally described. For instance, instead of using plasma derived by spontaneous sedimentation from whole blood after the addition of an anticoagulant such as potassium sequestrene, the present workers preferred centrifugation, albeit for a short period (5 minutes), at 3,000 r.p.m., the same anticoagulant being used. The methods of preparation of the choline-treated VDRL antigen used in both tests and of the anticoagulant are briefly described. Tests were performed in parallel, using both old and fresh antigen, on 48 reactive and ninety non-reactive specimens and it was found that the quantitative sensitivity (logarithmic value) of the RPR test was higher by about 0.3 than that of the VDRL test. Tests on a total of 86 samples showed the fresh RPR antigen to be no less sensitive than VDRL antigen. The RPR test would appear to be a satisfactory rapid method of sero-diagnosis reducing the difficulties attendant on case-holding in suspected syphilis.

Allene Scott

Agglutination of Spirochaetes in the Serum. A Contribution to Syphilitic Sero-Diagnosis. (Die Spirochätenagglutination im Serum, ein Beitrag zur Sero-diagnose der Lues.) ROEMER, G. B., and SCHLIPKÖTER, H.-W. (1958). *Z. Hyg. Infekt.-Kr.*, 145, 422. Bibl.

This paper from the University of Hamburg and the Institute of Hygiene, Düsseldorf, describes an agglutination reaction for syphilis in which a suspension of Reiter's organisms is used as antigen. The test is quantitative

and simple to perform. In tests on over 12,000 sera from syphilitic and non-syphilitic subjects the agglutination reaction was positive in 100 per cent. of cases of early syphilis; in cases in the later stages of the disease, 82 per cent. of positive results were obtained. A battery of routine serological tests was performed simultaneously and gave a lower proportion of positive results. In congenital syphilis the agglutination reaction was usually negative. It is considered that only about 1 per cent. of sera showed non-specific positive reactions, a result which compares favourably with the performance of the routine tests. The main advantage claimed for this agglutination reaction is its simplicity.

G. W. Csonka

Biologic False Positive Results in Serologic Tests for Syphilis. Findings in a Low Socio-economic Population Group. WARING, G. W., LANES, A. S., and MESCON, H. (1958). *J. Amer. med. Ass.*, **168**, 2004. 5 refs.

The concept of so-called biologic false positive results of serological tests for syphilis (STS) rested on clinical opinion until the introduction of Nelson's treponemal immobilization (TPI) test. Early reports of results with this test on groups of patients giving a positive reaction to STS but who showed no signs of syphilis indicated that more than 40 per cent. were false positive reactors. However, much of this evidence concerned white patients of good (or undefined) economic status. The present authors report from Boston University School of Medicine a study of 75 patients giving positive STS results and in nine (12 per cent.) of whom the TPI test was negative. Of these patients, 23 were white and varied widely in social and economic backgrounds, while the other 52 were unselected Negroes who appeared to be low in the social and economic scale. In all cases the STS gave a positive result on repetition. None of the patients gave a history or showed the physical signs of syphilis. Examination of the cerebrospinal fluid in most of the cases gave normal results except in two cases in which the protein content was slightly raised. All the negative TPI reactions, and hence all the presumed false positive STS results occurred in the white patients, of whom 39 per cent. were thus false positive reactors; in all the Negro subjects the TPI reaction was positive.

On the basis of these findings the authors suggest that the high incidence of false positive reactions reported by others is mainly due to selection of patients; by reversing the criteria of selection they were able to collect a group in which there was no margin of error in the standard tests. They stress, too, that not all problems and uncertainties can be resolved in the laboratory. The clinician must collect and assess a variety of information including the results of examination of the patient's sexual partners and his family, including children and parents. Also the patient must be fully examined and tested and an inquiry and estimate made of his sexual habits. The general medical examination and laboratory studies should include a search for evidence of chronic disease known to cause false positive reactions.

A. J. King

Value of the Treponemal Immobilization Test in the Tropics. (Intérêt du test d'immobilisation des tréponèmes en milieu tropical.) RANQUE, J., and DEPIEDS, R. (1958). *Méd. trop.*, **18**, 893. 13 refs.

The authors present, from the Faculty of Medicine, Marseilles, an evaluation of the treponemal immobilization (TPI) test in tropical countries, basing their conclusions on 7 years' experience during which 7,000 TPI tests were performed, 1,500 of them in the tropics. They are satisfied regarding the specificity of the test, but emphasize that it cannot differentiate between syphilis and the tropical treponematoses (yaws, bejel, and similar conditions). The test gave a negative result in relapsing fever, leptospiral infection, Vincent's angina, phagedena, trypanosomiasis, leishmaniasis, and severe anaemia.

False positive results in serological tests for syphilis in the tropics are commonly due to leprosy, viral and rickettsial infections, and parasitic infestations. In all these conditions a considerable proportion of positive results obtained with the Wassermann reaction and flocculation tests were proved to be biological and non-specific. A study of ten non-syphilitic patients inoculated with *Trypanosoma gambiense* showed that in two the results of the classic serological tests for syphilis became positive temporarily, but in none did the TPI test reveal the presence of immobilizing substances. In the authors' opinion the number of false positive results in serological tests for syphilis found in trypanosomiasis has been exaggerated; they did not find the incidence to be more than 3 per cent.

In visceral leishmaniasis (kala-azar) the ultrasensitive serological tests for syphilis gave some positive results, but the less sensitive serological tests and the TPI test gave negative results. In febrile bouts of malaria temporary false positive reactions were obtained for 25 to 40 days in a small proportion of patients studied, but otherwise the results of the TPI and standard tests agreed. Similarly in filarial and bilharzial infections some biological false positive reactions were noted, but these infections did not affect the result of the TPI test.

The TPI test may reveal cases of latent or inadequately treated syphilis missed by the standard serological tests, but in the authors' opinion the frequency with which this occurs has been greatly exaggerated. Out of more than 5,500 cases examined in non-tropical areas they found a positive TPI reaction associated with negative standard reactions in only twelve cases of aortitis, five of general paralysis, eight of tabes, and three with gummata. In the tropics such findings were mainly confined to a group of 49 cases of neuropsychiatric syphilis, in seven of which the Wassermann reaction was negative and the TPI reaction positive. The authors recall, however, that the TPI reaction remains positive for a very long time, even after the syphilitic infection is inactive, and that in the tropics positive findings are very frequently due to previous treponematoses. They conclude that in the tropics the standard serological test for syphilis commonly give a high proportion of false positive results, but that it is possible to avoid these by using tests of relatively low sensitivity. The

TPI test was found to be highly specific and, apart from treponematoses, this test could be depended on to exclude syphilis in leprosy, rickettsial and viral infections, trypanosomiasis, and malaria. Equally important, the TPI test could confirm the presence of syphilis revealed by the standard serological tests and thus restore confidence in the use of these tests in hot countries.

Robert Lees

Use of Pathogenic *Treponema pallidum* as Antigen in Complement-Fixation Reactions. (Utilisation de *Treponema pallidum* pathogène en tant qu'antigène pour réaction de fixation du complément.) VAISMAN, A., HAMELIN, A., and PRUDHOMME, R. (1958). *Ann. Derm. Syph. (Paris)*, **85**, 642. 28 refs.

Treponemes harvested from the testes of rabbits infected with the virulent Nichols strain of *Treponema pallidum* were washed free from testicular juice, suspended in 0.3 per cent. phenol-saline, and disintegrated by exposure to ultrasonic waves (960 kHz) for 30 minutes in an atmosphere of hydrogen to avoid oxidation. The resulting suspension of very fine particles was used at its optimum titre as the antigen in complement-fixation tests by the fifth-volume Kolmer technique. An antigen was prepared from the cultivable Reiter treponeme by a similar method.

Tests on 2,216 sera were carried out with both these antigens at the Institut Alfred-Fournier, Paris, in parallel with the treponemal immobilization (TPI) test and four standard tests for syphilis (STS) with lipoidal antigens (the Kolmer and Demanche complement-fixation tests and the Kline and Kahn tests). The sera were selected in that they included a majority which had shown discrepancies between the results of the TPI test and the STS. The results of the TPI test were used as a baseline for the estimation of the sensitivity and specificity of the various other tests, the group of STS being considered as a whole.

A positive TPI reaction was obtained with 1,666 sera. Of these, 94.6 per cent. gave a positive complement-fixation reaction with the antigen made from virulent *T. pallidum* and 88.4 per cent. with that from the Reiter organism, while only 61.8 per cent. gave a positive result with the STS. The remaining 550 sera gave negative TPI reactions; 24 of these gave positive reactions with the Nichols-strain antigen, 38 with the Reiter antigen, and 77 with the STS. [No clinical information is given about those patients whose sera gave discrepant results.] The authors conclude that the antigen made from the virulent organism is preferable to that made from the Reiter strain because of its greater sensitivity and specificity.

A. E. Wilkinson

Value of the *Treponema pallidum* Agglutination Test carried out without Pre-Treatment of the Serum. Confirmation of Positive Serological Reactions for Syphilis. (Der Wert der ohne Vorbehandlung des Serums durchgeführten Treponema pall. Agglutination für die Bestätigung des positiven Ausfalls der Leus-Reaktion.) KIRALY, K. (1959). *Z. Immun.-Forsch.*, **117**, 317. 18 refs.

Recent Study of the Results of Pre-Marital Serologic Testing in a Southern State. BROWN, W. J., and SUNKES, E. J. (1959). *Sth. med. J. (Bgham, Ala.)*, **52**, 707.

Nelson-Mayer (TPI) Test for the Diagnosis of Syphilis. Comparative Study with Standard Serology in 567 Cases. (La reacción de Nelson y Mayer (TPI) para el diagnóstico de la sífilis.) SCHERE, M. (1958). *Pren. med. argent.*, **45**, 3735. 8 refs.

Immune Adhesion Test in the Diagnosis of Syphilis. (Il test di immuno-aderenza (TPIA) nella diagnosi della sifilide.) ATTILI, L., and VEZZANI, M. (1959). *Boll. Ist. sieroter. milan.*, **38**, 185. 7 refs.

Ionic Requirements of *Treponema pallidum*. I. Sodium and Potassium. DOAK, G. O., FREEDMAN, L. D., and CLARK, J. W., Jr. (1959). *J. Bact.*, **77**, 322. 15 refs.

Cardiolipin Antigen in the Quantitative Reaction of Complement Fixation after Kolmer. (Antygen kardioplinowy w ilościowym odczynie wiązania dopelnicza wg Kolmera.) SEMBRAT-NIEWIADOMSKA, Z. (1959). *Med. dośw. Mikrobiol.*, **11**, 51. 10 refs.

Study of the Behaviour of Reiter's Treponeme in Media containing Penicillin. (Étude sur le comportement du tréponème de Reiter en milieu pénicilliné.) GASTINEL, P., COLLART, P., and DUNOYER, F. (1959). *Ann. Inst. Pasteur.*, **96**, 381. 7 figs, 16 refs.

Frequency of Sero-Positive Syphilis in Norwegian Sailors. (Hyppigheten av Seropositiv Syfilis blant Norske Sjøfolk.) KORNSTAD, L. (1955). *Nord. Med.*, **54**, 1735.

GONORRHOEA

Asymptomatic Gonorrhoea in the Male. LANDMAN, G. S., and GELMI, O. (1959). *Sth. med. J. (Bgham, Ala.)*, **52**, 750. 1 fig., 9 refs.

Gonorrhoea in Ipoh, 1958. HOLMES, W. (1959). *Med. J. Malaya*, **13**, 197. 2 refs.

Prophylaxis of Ophthalmia Neonatorum. (Zur Prophylaxe der Neugeborenenblennorrhoea.) RINTELEN, F. (1959). *Bull. schweiz. Akad. med. Wiss.*, **15**, 135.

Oleandomycin Salt of Penicillin G combined with Potassium Penicillin G in the Treatment of Gonorrhoea in the Male. MARMELL, M., and PRIGOT, A. (1959). *Harlem Hosp. Bull.*, **11**, 99. 4 refs.

Treatment of Chronic Gonorrhoea. (Zur Therapie der chronischen Gonorrhoe.) PRINGER, W. (1959). *Wien. med. Wschr.*, **109**, 228. 29 refs.

Increased Relapse Rate after Penicillin Treatment (Same Preparation and Dose) of Gonorrhoea. (Tiltagende residivhyppighet etter penicillin-behandling [samme preparat og dose] for gonore.) GJESSING, H. C. (1959). *T. norske. Laegeforen.*, **79**, 829. 4 refs.

Failure of Penicillin in Treatment of Acute Gonorrhoea in American Troops in Korea. EPSTEIN, E. (1959). *J. Amer. med. Ass.*, **169**, 1055. 10 refs.

NON-GONOCOCCAL URETHRITIS AND ALLIED CONDITIONS

Pleuropneumonia-like Organisms in Genital Infections. KLIENEGER-NOBEL, E. (1959). *Brit. med. J.*, **1**, 19. 14 refs.

At the Lister Institute of Preventive Medicine, London, the author has examined pathological specimens from various groups of hospital patients for the presence of genital pleuropneumonia-like organisms (PPLO) by electron microscopy and cultural methods. It proved difficult to identify the organisms by the former method, and the latter alone was used in most cases. The composition of the culture media used is described.

The specimens were taken from the anterior urethra in males and from the vagina, cervix, and urethra in females. In cases of Reiter's disease synovial fluid was also examined. Urine was found to be perfectly suitable for the detection of PPLO in males, the deposit from 30 ml. recently voided urine being used for culture. Altogether, 98 strains of PPLO were isolated. The appearance of the colonies at various stages and the criteria adopted for their identification are discussed. Two of the most constant characteristics noted in these strains were their antibiotic sensitivity and serological specificity.

Cultures of urine from 100 healthy adult males and 47 boys under the age of 13 gave no significant yield of PPLO but, out of 201 specimens of urethral discharge or scrapings from men attending venereal disease clinics, 52 (25.5 per cent.) gave positive results on culture. The highest proportion of positive results (48 per cent.) in this group was obtained in recent cases of non-gonococcal urethritis, but PPLO were also isolated from fifteen out of 49 cases of gonorrhoea and six out of 63 cases of various other conditions. Six specimens of synovial fluid and all but two of fourteen specimens of urethral discharge from cases of Reiter's disease were negative on culture, the two positive results being regarded as due to superinfection.

Of 59 specimens from female patients attending a venereal disease clinic, 33 (56 per cent.) yielded PPLO. The proportion of positive results in cases of treated or untreated gonorrhoea, cervicitis, or vaginitis in this group was over 80 per cent., while PPLO were isolated from the discharge in two out of six cases of trichomonal vaginitis. About 20 per cent. of 109 specimens from patients attending obstetric and gynaecological clinics gave a positive growth. Of seven pairs of consorts investigated, PPLO were isolated from both partners in four cases and from neither in the remaining three.

These findings are discussed with reference to other published work; the prevalence of PPLO in recent cases of non-gonococcal urethritis in males and in cases of infection of the lower genital tract in females is stressed, and transmission of the infection by sexual intercourse is assumed.

F. Hillman

Pleuropneumonia-like Organism in the Genital Tract of Men and Women. GRIMBLE, A. S. (1959). *Guy's Hosp. Rep.*, **108**, 72. 8 refs.

The investigations described herein were directed towards determining the place, if any, of pleuropneumonia-like organisms (PPLO) in the aetiology of inflammation of the genito-urinary tract. Smears from the urethra or cervix of male and female patients attending the Venereal Diseases Department, Guy's Hospital, London, were cultured and specimens of serum were examined for the presence of complement-fixing antibodies against specific antigen.

In nine out of 26 males suffering from non-specific urethritis, PPLO were found in urethral cultures. Positive cultures were also obtained from eleven out of ninety unselected males and females and from twelve out of a further group of 33 unselected patients. The results of the complement-fixation tests were positive in 24 out of 118 unselected patients and in twelve out of another group of 85 patients, also unselected.

After analysis of the clinical and bacteriological data in all these cases the author concludes that although PPLO can be grown more readily from material from cases of non-specific urethritis than from the urethra of unselected males, the results of culturing PPLO from cases of non-specific urethritis supply no conclusive evidence of their pathogenicity. PPLO occur more frequently in the genital tract of asymptomatic females than in males, and he considers that while the male genitalia harbour these organisms under certain circumstances, the female is probably the more frequent asymptomatic carrier.

Complement-fixing antibodies were not usually found in the sera of males with acute non-specific urethritis even when PPLO were present, but specimens of serum from sexually active females with obvious genital inflammation were often strongly positive.

G. L. M. McElligott

Experiences in the Treatment of Reiter's Disease. [In Hungarian]. VARGA, E. (1959). *Orv. Hetil.*, **100**, 485.

Report of a patient healed by chlorocid. This treatment is said to prove the viral aetiology of the disease.

P. Weinstein

Sacro-Iliitis in Reiter's Disease. OATES, J. K., and YOUNG, A. C. (1959). *Brit. med. J.*, **1**, 1013. 2 tab., 22 refs.

A survey of 78 cases, showing an associated arthritis, urethritis, and sometimes iritis and conjunctivitis. Sacro-iliac pain is a frequent accompaniment, especially of the relapses of iritis.

P. D. Trevor-Roper

Ocular Manifestations of the Fiessinger-Leroy-Reiter Syndrome. (Manifestations oculaires du syndrome de Fiessinger-Leroy-Reiter.) FOURCADE, M., and COUADAU, H. (1958). *Bull. Soc. franç. Ophtal.*, **71**, 450. 10 refs.

Observation of thirty cases of the oculo-urethro-synovial syndrome by the authors established the

frequency of irido-ciliary participation as well as that of the classical conjunctivitis. They report several cases of serious, recurrent iridocyclitis, resistant to treatment. The causes of the disease, its place in the general picture of uveitis, and the prognosis are discussed. *M. H. T. Yuille*

Contribution to the Study of Reiter's Treponeme. (Contribution à l'étude du tréponème de Reiter.) MUTERMILCH, S., and GÉRARD, S., and DELAVILLE, M. (1959). *Ann. Inst. Pasteur.*, **96**, 402. 10 refs.

Neurological Symptoms and Lesions occurring in the Course of Reiter's Disease. OATES, J. K., and HANCOCK, J. A. H. (1959). *Amer. J. med. Sci.*, **238**, 79. 3 refs.

Treatment of Non-Gonococcal Urethritis with Spiramycin (Rovamycin). LEVY, B. (1959). *J. roy. Army med. Cps*, **105**, 87. 1 ref.

CHEMOTHERAPY

Untoward Penicillin Reactions. [Review Article]. GUTHE, T., IDSÖE, O., and WILLCOX, R. R. (1958). *Bull. Wld Hlth Org.*, **19**, 427.

PUBLIC HEALTH AND SOCIAL ASPECTS

Venereal Diseases in Prostitutes treated at the Hospital do Desterro, Lisbon (1956-57). (Venereologia nas meretrizes assistidas no Hospital do Desterro (1956-1957.)) SAMPAIO, M., and CHAVES, M. (1958). *Trab. Soc. port. Derm.*, **16**, 149.

The authors analyse the incidence of venereal diseases in prostitutes admitted to the Hospital Desterro, Lisbon, during 1956 and 1957. In the former year 204 were admitted, of whom 62 were "registered" prostitutes, but in 1957 the number admitted fell to 146, of whom only 46 were registered, this decline being due in part to the passage of a new law which prohibited the further registration of prostitutes and the opening of new brothels.

Of the 204 women admitted in 1956, fifteen (7.3 per cent.) were suffering from early syphilis, 77 (37.5 per cent.) from latent syphilis, 61 (29.9 per cent.) from "gonococcal vulvo-vaginitis", 64 (31.3 per cent.) from trichomonal vulvo-vaginitis, 49 (24 per cent.) from monilial vulvo-vaginitis, five (2.4 per cent.) from soft sore, and 41 (20 per cent.) from genital warts. In 36 patients there was an association of two or three of these conditions. The Frei reaction was positive in seventeen of 164 patients tested, although there was no clinical sign of lymphogranuloma. In 64 of these 164 cases, the Itô test was positive, and in five cases this coincided with lesions of chancroid. In addition a number of prostitutes were suffering from other conditions, including pulmonary tuberculosis (three cases), leg ulcers (three), and hepatic cirrhosis, nephritis, and carcinoma of the breast (one case each). It is noted that twelve of the women were pregnant, 109 (53.4 per cent.) were illiterate, and 32 were minors.

Of the 146 women admitted in 1957, seventeen (11.6 per cent.) were suffering from early syphilis, 44 (30.1 per cent.) from latent syphilis, 43 (29.4 per cent.) from "gonococcal vulvo-vaginitis", 48 (32.8 per cent.) from trichomonal vulvo-vaginitis, nine (6.1 per cent.) from

soft sore, one (0.6 per cent.) from lymphogranuloma venereum, eleven (7.5 per cent.) from ulceration of the cervix, 29 (19.8 per cent.) from genital warts, and five (3.4 per cent.) from molluscum contagiosum; in 42 cases there was an association of two or more of these conditions. In seven of the forty cases in which the Itô test gave a positive result, there was chancroidal ulceration; the Frei test was positive in fourteen cases, in one of which there was proliferative proctitis. Other diseases present included pulmonary tuberculosis (three cases), and one case each of catarrhal jaundice, metrorrhagia, anaemia following abortion, and sacral fistula. In this series fourteen women were pregnant and 85 were illiterate.

It is noted that the incidence of monilial vulvo-vaginitis was 5 per cent. in 1955, 24 per cent. in 1956, and 32 per cent. in 1957. This increase is ascribed to the use of injections of long-acting penicillin for the prophylaxis of venereal disease. Gonococci were isolated from five cases of gonorrhoea after treatment with intramuscular injections of dihydrostreptomycin in a dosage of 0.5 g. every 12 hours for 10 days.

[The high incidence of venereal infection in these women despite the routine use of "prophylactic" long-acting penicillin is worthy of note. As a result of this treatment selective breeding of penicillin-resistant gonococci is to be expected, as was shown by Curtis and Wilkinson (*Brit. J. vener. Dis.*, 1958, **34**, 70; *Abstr. Wld Med.*, 1959, **25**, 17).] *Eric Dunlop*

V.D. Control Program of the Manila Health Department. IBARRA, L. M. (1959). *J. Philipp. med. Ass.*, **35**, 219. 4 refs.

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Venereal Diseases To-day. [Review Article]. FIUMARA, N. J., APPEL, B., HILL, W., and MESCON, H. (1959). *New Engl. J. Med.*, **260**, 863 and 917. 1 fig., bibl.

Sulphamethoxy-Pyridazine in the Treatment of Lymphogranuloma Venereum. KRISHNAMURTHI, N. (1959). *Antiseptic*, **56**, 184. 1 fig., 2 refs.

Yaws as a Factor in the Causation of Contractures of the Fingers among the Population of West Africa. RELVICH, A. L. (1959). *W. Afr. med. J.*, **8**, 78. 1 ref.

Epidemiology of Receding Yaws. HACKETT, C. J. (1959). *J. trop. Med. Hyg.*, **62**, 153. 1 fig., 3 refs.

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Vaginitis in Children. GROSSI, M. T., and BUCHMAN, M. I. (1959). *Amer. J. Dis. Child.*, **97**, 613. 7 refs.